

GenCore version 5.1.4\_p5\_4578  
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OM protein - protein search, using sw model

Run on: March 17, 2003, 07:19:15 ; Search time 28.0916 Seconds  
(without alignments)  
234.715 Million cell updates/sec

Title: US-09-787-082-7

Perfect score: 188

Sequence: 1 GLPVCKGKAGKSRMLYDCCTGSCRSKCTRIG 32

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 671580 seqs, 206047115 residues

Total number of hits satisfying chosen parameters: 671580

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL\_21.\*

- 1: sp\_archaea.\*
- 2: sp\_bacteria.\*
- 3: sp\_fungi.\*
- 4: sp\_human.\*
- 5: sp\_invertebrate.\*
- 6: sp\_mammal.\*
- 7: sp\_mhc.\*
- 8: sp\_organelle.\*
- 9: sp\_phage.\*
- 10: sp\_plant.\*
- 11: sp\_rodent.\*
- 12: sp\_virus.\*
- 13: sp Vertebrate.\*
- 14: sp Unclassified.\*
- 15: sp\_rvirus.\*
- 16: sp\_bacteriap.\*
- 17: sp\_archaeap.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	127	67.6	66	5 Q9N633	Q9N633 conus catus
2	127	67.6	66	5 Q9NCW6	Q9NCW6 conus catus
3	127	67.6	66	5 Q9NCW5	Q9NCW5 conus catus
4	127	67.6	66	5 Q9NCW3	Q9NCW3 conus catus
5	120	63.8	66	5 Q9NCW4	Q9NCW4 conus catus
6	120	63.8	66	5 Q9NCV5	Q9NCV5 conus catus
7	117	62.2	66	5 Q9NCV7	Q9NCV7 conus catus
8	116	61.7	66	5 Q9NCV6	Q9NCV6 conus catus
9	116	61.7	66	5 Q9NCV4	Q9NCV4 conus catus
10	116	61.7	66	5 Q9NCV0	Q9NCV0 conus catus
11	116	61.7	66	5 Q9NCU1	Q9NCU1 conus catus
12	115	61.2	66	5 Q9N628	Q9N628 conus catus
13	115	61.2	66	5 Q9N625	Q9N625 conus catus
14	115	61.2	66	5 Q9NCW2	Q9NCW2 conus catus
15	115	61.2	66	5 Q9NCV3	Q9NCV3 conus catus
16	115	61.2	66	5 Q9NCV2	Q9NCV2 conus catus

17	115	61.2	66	5 Q9NCV1	Q9NCV1 conus stria
18	114	60.6	66	5 Q9N6F7	Q9N6F7 conus catus
19	114	60.6	66	5 Q9NCW1	Q9NCW1 conus catus
20	104	55.3	66	5 Q9N6F8	Q9N6F8 conus catus
21	104	55.3	66	5 Q9NCW0	Q9NCW0 conus catus
22	104	55.3	66	5 Q9NCV9	Q9NCV9 conus catus
23	103	54.8	66	5 Q9NCV6	Q9NCV6 conus catus
24	95	50.5	66	5 Q9NCV8	Q9NCV8 conus catus
25	69.5	37.0	57	5 Q9N9H2	Q9N9H2 venerupis (
26	69.5	37.0	57	5 Q9N9H1	Q9N9H1 ruditapec d
27	69.5	37.0	107	5 Q9NG19	Q9NG19 crassostrea
28	66.5	35.4	75	5 Q9U1N5	Q9U1N5 crassostrea
29	65.5	34.8	80	5 Q9BIV4	Q9BIV4 crassostrea
30	60	31.9	81	5 Q9BP83	Q9BP83 conus arena
31	59	31.4	78	5 Q9U656	Q9U656 conus texti
32	59	31.4	686	5 Q94316	Q94316 caenorhabdi
33	59	31.4	1486	4 Q14637	Q14637 homo sapien
34	58	30.9	70	5 Q9G7T9	Q9G7T9 anadara gra
35	58	30.9	78	5 Q9U655	Q9U655 conus texti
36	58	30.9	318	10 Q9SB60	Q9SB60 arabidopsis
37	58	30.9	541	4 Q9H6L0	Q9H6L0 homo sapien
38	57.5	30.6	50	12 Q8QLC7	Q8QLC7 mamestra co
39	57	30.3	67	5 Q9N604	Q9N604 conus stria
40	57	30.3	67	5 Q9NCU6	Q9NCU6 conus stria
41	57	30.3	67	5 Q9NCU3	Q9NCU3 conus stria
42	57	30.3	67	5 Q9NCU2	Q9NCU2 conus stria
43	57	30.3	1952	5 Q95SN5	Q95SN5 drosophila
44	57	30.3	4547	5 Q9W343	Q9W343 drosophila
45	56	29.8	67	5 Q9NCU5	Q9NCU5 conus stria

#### ALIGNMENTS

RESULT 1

Q9N633 PRELIMINARY; PRT; 66 AA.  
AC Q9N633;  
DT 01-OCT-2000 (TrEMBLrel. 15, Created)  
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)  
DE 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)  
DE Four-loop conotoxin precursor (Fragment).  
OS Conus catus.  
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;  
OC Neogastropoda; Conoidea; Conidae; Conus.  
OX NCBI\_TaxID=101291;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=CCATH\_11\_6, CCATH\_11\_1, AND CCATH\_11\_2;  
RA Duda T.F., Palumbi S.R.;  
RT "Molecular evolution of four-loop conotoxin precursors from fish-eating Conus";  
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.  
DR EMBL; AF174219; AAF89883.1; -;  
DR EMBL; AF174214; AAF89878.1; -;  
DR EMBL; AF174215; AAF89879.1; -;  
DR HSSP; P05484; IMVI.  
DR InterPro; IPR004214; Conotoxin.  
DR Pfam; PF02950; Conotoxin; 1.  
FT NON\_TER 1  
SQ SEQUENCE 66 AA; 7053 MW; E445338A6968A1AC CRC64;

Query Match 67.6%; Score 127; DB 5; Length 66;  
Best Local Similarity 80.0%; Pred. No. 1.5e-10;  
Matches 20; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 5 CKKGAKCSRLMYDCCTGSCRSKGC 29

||||| | | | | | | | | | | | | | | | | |

Db 41 CKKGASCRRTSYDCCTGSCRSKGC 65

RESULT 2

Q9NCW6

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ID Q9NCW6 PRELIMINARY; PRT; 66 AA.
AC Q9NCW6;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=CCATH_11_3;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174216; AAF89880.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7023 MW; E445339B6968B0AC CRC64;

Query Match 67.6%; Score 127; DB 5; Length 66;
Best Local Similarity 80.0%; Pred. No. 1.5e-10;
Matches 20; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 5 CKGKGAKSRLMYDCCGTGSCRSKGC 29
||||| | | | | | | | | | | | | | | | |
Db 41 CKKGASCRRTSYDCCGTGSCRSKGC 65

RESULT 3
Q9NCW5 PRELIMINARY; PRT; 66 AA.
AC Q9NCW5;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=CCATH_11_4;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174217; AAF89881.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7083 MW; E445338A7939E4A8 CRC64;

Query Match 67.6%; Score 127; DB 5; Length 66;
Best Local Similarity 80.0%; Pred. No. 1.5e-10;
Matches 20; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 5 CKGKGAKSRLMYDCCGTGSCRSKGC 29
||||| | | | | | | | | | | | | | | | |
Db 41 CKKGASCRRTSYDCCGTGSCRSKGC 65

RESULT 4
Q9NCW3 PRELIMINARY; PRT; 66 AA.
AC Q9NCW3;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
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DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=CCATH_11_7;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174220; AAF89884.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7054 MW; E9FB5E310968A1AC CRC64;

Query Match 67.6%; Score 127; DB 5; Length 66;
Best Local Similarity 80.0%; Pred. No. 1.5e-10;
Matches 20; Conservative 1; Mismatches 4; Indels 0; Gaps 0;

QY 5 CKGKGAKSRLMYDCCGTGSCRSKGC 29
||||| | | | | | | | | | | | | | | | |
Db 41 CKKGASCRRTSYDCCGTGSCRSKGC 65

RESULT 5
Q9NCW4 PRELIMINARY; PRT; 66 AA.
AC Q9NCW4;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=CCATH_11_5;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174218; AAF89882.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 6995 MW; E445338A6AA7A1AC CRC64;

Query Match 63.8%; Score 120; DB 5; Length 66;
Best Local Similarity 76.0%; Pred. No. 1.4e-09;
Matches 19; Conservative 1; Mismatches 5; Indels 0; Gaps 0;

QY 5 CKGKGAKSRLMYDCCGTGSCRSKGC 29
||||| | | | | | | | | | | | | | | | |
Db 41 CKKGASCRRTSYDCCGTGSCRSKGC 65

RESULT 6
Q9NCV5 PRELIMINARY; PRT; 66 AA.
AC Q9NCV5;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
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DT 01-OCT-2000 (TEMBLrel. 15, Created)  
DT 01-OCT-2000 (TEMBLrel. 15, Last sequence update)  
DT 01-JUN-2002 (TEMBLrel. 21, Last annotation update)  
DE Four-loop conotoxin (Fragment).  
OS *Conus striatus* (Striated cone).  
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;  
OC Neogastropoda; Conoidea; Conidae; Conus.  
RX NCBI\_TaxID=6493;  
RN [1]

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RP SEQUENCE FROM N.A.
RC STRAIN-CSTRH_1.7;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174246; AAF89910.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 6981 MW; 20CDC33D7CA7DA05 CRC64;

Query Match 61.7%; Score 116; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 5.1e-09;
Matches 18; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

Qy 5 CKGKGAKSRLMYDCTGSCRSKGC 29
|| | ||| :|:|||||||
Db 41 CKAAGKSCSRIAYNCTGSCRSKGC 65

RESULT 11
Q9NCU1 PRELIMINARY; PRT; 66 AA.
AC Q9NCU1;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus striatus (Striated cone).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=6493;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CSTRH_1;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174267; AAF89931.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 6951 MW; 0D9868C0A7A1A39F CRC64;

Query Match 61.7%; Score 116; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 5.1e-09;
Matches 18; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

Qy 5 CKGKGAKSRLMYDCTGSCRSKGC 29
|| | ||| :|:|||||||
Db 41 CKAAGKSCSRIAYNCTGSCRSKGC 65

RESULT 12
Q9NG28 PRELIMINARY; PRT; 66 AA.
AC Q9NG28;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Four-loop conotoxin precursor (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CCATH_III_9, AND CCATH_III_6;
RA Duda T.F., Palumbi S.R.;
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RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174229; AAF89893.1; -.
DR EMBL; AF174226; AAF89890.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7057 MW; E7AA5E310968B7DA CRC64;

Query Match 61.2%; Score 115; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 7e-09;
Matches 18; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

Qy 5 CKGKGAKSRLMYDCTGSCRSKGC 29
|| | ||| :|:|||||||
Db 41 CKSTGASCRRTSYDCTGSCRSKGC 65

RESULT 13
Q9N625 PRELIMINARY; PRT; 66 AA.
AC Q9N625;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Four-loop conotoxin precursor (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-VAIRIOUS STRAINS;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174228; AAF89892.1; -.
DR EMBL; AF174221; AAF89885.1; -.
DR EMBL; AF174222; AAF89886.1; -.
DR EMBL; AF174224; AAF89888.1; -.
DR EMBL; AF174225; AAF89889.1; -.
DR HSSP; P05484; 1MVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7056 MW; EAl1338A6968B7DA CRC64;

Query Match 61.2%; Score 115; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 7e-09;
Matches 18; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

Qy 5 CKGKGAKSRLMYDCTGSCRSKGC 29
|| | ||| :|:|||||||
Db 41 CKSTGASCRRTSYDCTGSCRSKGC 65

RESULT 14
Q9NCW2 PRELIMINARY; PRT; 66 AA.
AC Q9NCW2;
DT 01-OCT-2000 (TrEMBLrel. 15, Created)
DT 01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus catus.
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=101291;
RN [1]
RP SEQUENCE FROM N.A.
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RC STRAIN-CCATH_111_3;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
RL eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174223; AAF89887.1; -.
DR HSSP; P05484; IMVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7026 MW; EA11339E382DB7DA CRC64;

Query Match 61.2%; Score 115; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 7e-09;
Matches 18; Conservative 1; Mismatches 6; Indels 0; Gaps 0;

QY 5 CKGKGAKCSRLMYDCTGSGRSGKC 29
Db 41 CKSTGASCRRTSYDCTGSGRSGRC 65

RESULT 15
Q9NCV3 PRELIMINARY; PRT; 66 AA.
AC Q9NCV3;
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-JUN-2002 (Tremblrel. 21, Last annotation update)
DE Four-loop conotoxin (Fragment).
OS Conus striatus (Striated cone).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Caenogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OX NCBI_TaxID=6493;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-CSTRH_1_3;
RA Duda T.F., Palumbi S.R.;
RT "Molecular evolution of four-loop conotoxin precursors from fish-
RT eating Conus.";
RL Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF174242; AAF89906.1; -.
DR HSSP; P05484; IMVI.
DR InterPro; IPR004214; Conotoxin.
DR Pfam; PF02950; Conotoxin; 1.
FT NON_TER 1
SQ SEQUENCE 66 AA; 7019 MW; 89B89B7AF1A7C7B3 CRC64;

Query Match 61.2%; Score 115; DB 5; Length 66;
Best Local Similarity 72.0%; Pred. No. 7e-09;
Matches 18; Conservative 2; Mismatches 5; Indels 0; Gaps 0;

QY 5 CKGKGAKCSRLMYDCTGSGRSGKC 29
Db 41 CRAAGKPCSRRIAYNCTGSGRSGKC 65
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Search completed: March 17, 2003, 07:26:22  
Job time : 29.0916 secs

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